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**NAVAL WAR COLLEGE
Newport, R.I.**

Effective Operational Assessment: A Return to the Basics

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: _____

27 October 2010

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Abstract

The criticisms of the reports on progress in Iraq and Afghanistan validly point to a dysfunctional operational assessment process. This dysfunctional process results from the lack of direction on how to conduct operational assessment. In light of this lack of direction, operational staffs have decided on a wide variety of processes to conduct assessment, though they generally focus on an overabundance of quantitative measures. This overabundance has burdened staffs with an overly complex data collection and assessment process that fails to deliver as staffs routinely spend more time on reports than actual analysis. Despite the current problems with operational assessment, history shows that analysts can achieve effective assessment by adhering to some basic principles. The Army's Field Manual 5-0 captures these basic principles; the joint force simply fails to live up to them. This paper demonstrates the importance of these basic principles and provides recommendations for their incorporation into joint doctrine and the Joint Operational Planning Process so the joint force has the tools needed to conduct effective operational assessment.

Introduction

Operational assessment grew out of the field of operations research and the introduction of methods to understand the operating environment from a whole systems perspective. With operational assessment came a renewed emphasis on measures of effectiveness (MOEs) and measures of performance (MOPs), sometimes collectively called metrics. Operations analysts used metrics for decades to understand the drivers between inputs, measured by MOPs and outputs, measured by MOEs of a given system, whether it was physical, economic, or political. Operational assessment aimed to assist joint force commanders in understanding the operational environment as a system to help them determine if the actions they took (inputs) had the effects they intended (outputs). If not, then commanders could adjust their actions based on the feedback from operational assessment.¹ While suitable as a theoretical concept, effective application requires far more detail. Joint doctrine lacks this detail. As such, the current operational assessment process in joint doctrine is inadequate for the joint force commander to conduct adequate assessment, particularly in population-centric operations.²

This paper argues that the doctrine discussion does not give direction and lacks the necessary detail to conduct adequate operational assessment. Furthermore, this lack of direction and detail has resulted in poor practices in operational assessment. The first section

¹ For a description of these concepts, see Joint Warfighting Center, U.S. Joint Forces Command, *Commander's Handbook for an Effects-Based Approach to Joint Operations* (Suffolk, VA: U.S. Joint Forces Command, Joint Warfighting Center, February 24, 2006), http://www.au.af.mil/au/awc/awcgate/jfcom/ebo_handbook_2006.pdf (accessed 15 October 2010).

² U.S. Department of Defense. *Irregular Warfare Joint Operating Concept* (Washington, D.C.: DoD, 11 September 2007), 8-9, <http://www.dtic.mil/futurejointwarfare/concepts/iw-joc.pdf> (accessed 1 September 2010). The IW JOC states that what makes warfare “irregular” is its focus on a relevant population and the control or influence of that population. Stability and reconstruction operations are included in the range of activities that can be conducted as part of IW. To simplify the verbiage, this paper uses “population-centric” to mean these types of activities.

of the paper discusses the various joint publications, examining what they have to say about the operational assessment process: how it is done, what is done, and who does it. That section will also touch briefly on service doctrine for some important considerations for improving joint doctrine. The next section describes the practice of operational assessment as seen through the eyes of researchers and critics. The third section covers two historical cases studies that highlight some best practices in assessment that worked and therefore are worth considering for incorporation into joint doctrine. The fourth section provides the counterargument that joint force commanders gain little to no benefit from operational assessment for the effort expended. The last section contains recommendations for improving joint doctrine for operational assessment.

Current Doctrine for Operational Assessment

The current doctrine for operational assessment is spread out among several of the joint publications, such as JP 3-0, *Joint Operations*, JP 5-0, *Joint Operation Planning*, and JP 3-33, *Joint Task Force Headquarters*. Additional publications such as JP 3-60, *Joint Targeting*, include assessment as part of the targeting cycle, yet the discussion in that context focuses on combat assessment and therefore exclusively on the tactical level.³ Within the top-level publications, JP 3-0 and JP 5-0⁴, though, the discussion on assessment is quite general and the only detailed sections focus on the criteria for MOEs and MOPs. Doctrine provides little detail on the actual process for conducting assessment.

³ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Targeting*, Joint Publication (JP) 3-60 (Washington, D.C.: CJCS, 13 April 2007), II-18–II-19.

⁴ The text regarding assessment is largely the same in those two publications. See JP 3-0, IV-30–IV-34 and JP 5-0, III-57–III-63.

Joint Publication 3-0 describes assessment as —~~p~~rocess that measures progress of the joint force toward mission accomplishment.”⁵ It then declares that commanders should —~~e~~continually assess the operational environment” and —~~a~~adjust operations based on their assessment to ensure military objectives are met and military end state is achieved.”⁶ As part of the commander’s decision cycle as described in JP 3-33, the operational assessment process involves monitoring the operational environment to —~~m~~asure ongoing activities” (that generates information on how the current environment differs from how the staff envisioned it in the planning process), followed by assessing that information to —~~k~~ep pace with a constantly evolving situation.” The result of this assessment feeds into the next iteration of planning in the decision cycle.⁷ Joint Publications 3-0 and 5-0 also describe another key element of the assessment process, the link between assessment and operational design. Operational assessment connects to operational design through the Joint Operation Planning Process (JOPP). The JOPP incorporates assessment by way of mission success criteria. These criteria, which staffs determine during the mission analysis step of the JOPP, become —~~t~~he basis for assessment.”⁸ As seen from this short discussion, joint doctrine lacks sufficient guidance and direction for *how* planners conduct assessment. The next section covers *who* conducts assessment.

As for who should conduct assessment, doctrine declares, —~~n~~ormally the joint force J-3, assisted by the J-2, is responsible for coordinating assessment activities.”⁹ In fact JP 2-0, *Joint Intelligence*, states in its assessment section that the —~~j~~oint force J-2, through the

⁵ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Operations*, Joint Publication (JP) 3-0 (Washington, D.C.: CJCS, 22 March 2010 with Change 2), IV-30.

⁶ JP 3-0, *Joint Operations*, IV-30.

⁷ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Task Force Headquarters*, Joint Publication (JP) 3-33 (Washington, D.C.: CJCS, 16 February 2007), IV-2–IV-3.

⁸ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Operation Planning*, Joint Publication (JP) 5-0 (Washington, D.C.: CJCS, 26 December 2006), III-27.

⁹ JP 3-0, *Joint Operations*, IV-31.

combatant command JIOC [Joint Intelligence Operations Center], helps the commander by ... monitoring the numerous aspects of the operational environment that can influence the outcome of operations.” Furthermore, the J-2 helps decide ~~what~~ aspects of the operational environment to measure” through the Joint Intelligence Preparation of the Operational Environment (JIPOE) process.¹⁰ Joint Publication 3-0 proceeds to say that the Chief of Staff (COS) ~~facilitates~~ the assessment process by incorporating [it] into the ... battle rhythm.”¹¹ Of note, doctrine makes no mention of specific skills or expertise required for assessment, such as cultural, historical, sociological, or political expertise for putting population-centric operations into context. The final discussion in doctrine focuses on the activities done during operational assessment (the *what*).

The joint doctrine discussion on what staffs do during assessment focuses on the creation and monitoring of MOEs and MOPs.¹² Doctrine does note the operational level of war clearly uses measures of effectiveness vice measures of performance. Joint doctrine does provide the attributes of MOEs and MOPs: relevant, measurable, responsive, and resourced.¹³ The two attributes that this paper argues are sources of the problems in the practice of assessment are relevancy and measurability. The military tends to focus on the quantitative; in fact, doctrine emphasizes quantitative metrics. Joint Pub 5-0 states, ~~meaningful~~ quantitative measures are preferred because they are less susceptible to subjective interpretation.”¹⁴ Quantitative measures work fine, particularly in conventional,

¹⁰ U.S. Office of the Chairman of the Joint Chiefs of Staff, *Joint Intelligence*, Joint Publication (JP) 2-0 (Washington, D.C.: CJCS, 22 June 2007), IV-18.

¹¹ JP 3-0, *Joint Operations*, IV-31

¹² JP 5-0, *Joint Operation Planning*, III-60–III-61.

¹³ JP 5-0, *Joint Operation Planning*, III-61–III-62. For a MOE or MOP to be measurable, they must have ~~standards~~ they can be measured against,” whether those are quantitative or qualitative. In other words, in an ideal world, even qualitative assessments would be able to point back to some justification on what constituted a given label (e.g. below average, average, above average, or poor, adequate, and good).

¹⁴ JP 5-0, *Joint Operation Planning*, III-61.

kinetic operations. However, in population-centric operations, such as irregular warfare and “Phase IV” stability operations, quantitative measures alone do not suffice for effective assessment.

As for the service doctrines, only the Army’s FM 5-0, *The Operations Process* provides any fidelity;¹⁵ Air Force, Navy and Marine doctrine discussions of assessment, like joint doctrine, lack detail. Field Manual 5-0 provides some further description of *what* assessment is, but not *how* to do it. Field Manual 5-0 offers real value through its discussion of basic principles of assessment and considerations for effective assessment. The basic principles, or rules of thumb, for assessment are “avoid excessive analyses,” “avoid ... overly detailed assessment and collection of data,” and avoid measuring something just because it can be measured.¹⁶ The two pertinent considerations for effective assessment in FM 5-0 are combining quantitative and qualitative indicators and using informal assessment methods with formal methods.¹⁷ The next section discusses how the current practice of operational assessment violates these basic principles and considerations to the detriment of mission accomplishment.

Current Practice of Operational Assessment

While critiques and analysis of the operational assessment process are virtually non-existent, examination of the symptoms of a poorly executed process provides insight into the problems with the process. The logic of this section then is as follows. First, it will discuss one of these critiques that highlight the symptoms of this dysfunctional process. Then, it will

¹⁵ U.S. Army. *The Operations Process*, Field Manual (FM) 5-0 (Washington, D.C.: Headquarters Department of the Army, 26 March 2010), https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm5_0.pdf (accessed 18 October 2010). Chapter 6 covers assessment and Appendix H covers formal assessment plans.

¹⁶ FM 5-0, *The Operations Process*, 6-1.

¹⁷ FM 5-0, *The Operations Process*, 6-7–6-9.

discuss a critique of the assessment process at upper tactical level in Afghanistan that exhibits the same symptoms found at the operational level. From these two viewpoints, this paper argues that the problems in the practice of assessment process at the tactical level are indicative of the problems at the operational level, particularly because the operational level assessments simply aggregate the tactical level assessments in most cases.

It does not take much digging to find several critiques on the assessment reports released on the progress in Iraq or Afghanistan.¹⁸ Since these reports cover assessments at a countrywide scale, they constitute results at the operational level.¹⁹ While these critiques center on the meaningless charts and graphs, the mismatches in narrative to the graphics, and the failure to address trends with adequate explanations, they reveal some of the root-level symptoms in the assessment process. These symptoms include the tendency to measure what can be measured vice what should be measured, an over-reliance on quantitative measurements, and a tendency to measure inputs vice outputs. In one particularly scathing report by Anthony Cordesman, *The Quarterly Report on 'Measuring Stability and Security in Iraq: Fact, Fallacy, and an Overall Grade of 'F'*, he describes the analysis as “deeply flawed” with “analytical and statistical mistakes” that use “undefined and unverifiable survey

¹⁸ Anthony Cordesman is the most prolific writer about this topic though Stephen Downes-Martin, Ben Connable, and Joseph Soeters have all commented on either the assessment process in Iraq or Afghanistan or the reports on progress in those two countries. Some of the most pertinent publicly available reports include Anthony H. Cordesman, “The Quarterly Report on ‘Measuring Stability and Security in Iraq: Fact, Fallacy, and an Overall Grade of ‘F’.” (Washington, D.C.: Center for Strategic and International Studies, 5 June 2006). http://csis.org/files/media/csis/pubs/0605_iraquarterlyreport.pdf (accessed 13 October 2010); Anthony H. Cordesman, “How to Lose a War - and Possibly How to Win One,” Center for Strategic and International Studies, <http://csis.org/publication/afghan-metrics> (accessed 13 October 2010); Anthony H. Cordesman, “Transparency, Credibility and a Long War,” Center for Strategic and International Studies, <http://csis.org/publication/afghanistan-and-obama> (accessed 13 October 2010).

¹⁹ The results are typically nation-wide surveys, geographic charts showing the conditions across regions or districts with overall assessments of the country, and aggregate tabulations of numbers at the national level. In fact, operational level commands such as Multi-National Force-Iraq (MNF-I), and International Security Assistance Force (ISAF) in Afghanistan provide some of the data for these. Results at a lower level, such as a given region or district, constitute tactical level assessments.

information.”²⁰ While the “Security Environment” section (with much of the information provided by the Multi-National Force-Iraq) rates a “C-,” the report points out serious flaws in the analysis. For instance, in a table in the actual Quarterly Report²¹ displays the number of trained and equipped Iraqi Security Forces (ISF), but as Cordesman points out, the narrative does not make clear whether these numbers refer to the number of trainees rushed through the system, or actual numbers of forces ready to assume duty.²² Kagan agrees, stating that the “real evaluations are inherently subjective based on the trainer’s view of the situation.” Those numbers say little about “the unit’s actual capabilities.”²³ This example illustrates the symptoms just mentioned: tendency to measure what can be measured (number of security forces trained), tendency to measure inputs (again, number of security forces trained), and an over-reliance on quantitative measurements (a “body count” of sorts.) The report should have indicated the number of forces ready for full duty. While this number is a quantitative measure, determining “readiness for duty” requires a qualitative measurement based on definable criteria. Therefore, measuring the number of forces ready for full duty follows one of the effective assessment considerations in FM 5-0, combining quantitative and qualitative indicators.

Dr. Downes-Martin found similar symptoms in the flawed assessment process of Regional Command (Southwest), RC (SW), in Afghanistan. Among these symptoms were an overabundance of measures (or metric), analytical and statistical inaccuracies, simplistic

²⁰ Anthony H. Cordesman, “The Quarterly Report on ‘Measuring Stability and Security in Iraq’: Fact, Fallacy, and an Overall Grade of ‘F’.” (Washington, D.C.: Center for Strategic and International Studies, 5 June 2006), 2, http://csis.org/files/media/csis/pubs/0605_iraquarterlyreport.pdf (accessed 13 October 2010).

²¹ U.S. Department of Defense. *Measuring Stability and Security in Iraq: May 2006: Report to Congress In accordance with the Department of Defense Appropriations Act 2006* (Washington, D.C.: DoD, 2006) , 46, <http://www.defense.gov/pubs/pdfs/May%2006%20Security%20and%20Stability%20Report%20Final%20with%20errata.pdf> (accessed 13 October 2010).

²² Cordesman, “The Quarterly Report,” 11.

²³ Frederick W. Kagan, “Measuring Success,” *Armed Forces Journal*, January 2006, <http://armedforcesjournal.com/2006/01/1397777/> (access 10 October 2010).

color coding of the results, flawed logic in the connection between objectives, metrics, and the assessment results, and finally a prejudice towards quantitative assessment. Additionally, the quantitative assessments measured what could be measured and not necessarily what should be measured. In addition, he noted flawed statistical arithmetic and a failure to understand simple analytical concepts such as margin of error when examining trends.²⁴ The abundance of metrics violates the basic principles of avoiding overly excessive data collection and analyses. The proclivity for quantitative assessment runs counter to the consideration for combining quantitative and qualitative measures. The simplistic color-coding identifies symptoms of a reliance on formal assessment methods; informal methods such as patrol reports did not provide context for the results of the formal assessment.²⁵

As seen by these examples, the results, or products, of the operational assessment process are terribly deficient. Furthermore, researchers deemed these results the byproduct of inadequate, and therefore deficient, processes.²⁶ Dr. Downes-Martin found that one staff claimed to have a “rigorous process,” yet had no documentation for it.²⁷ Ben Connable of RAND found that ISAF had a detailed process, but it focused on quantitative effects.²⁸ It is not clear what guidance or direction these processes used. Given the problems these researchers discovered, this paper argues that fixing the absence of well-defined doctrine for an operational assessment process is a start to correcting those problems.

²⁴ Stephen Downes-Martin, —Assessments Process for RC(SW)” (unpublished draft, Newport, RI: U.S. Naval War College, Center for Irregular Warfare and Armed Groups, 2010), 3–7.

²⁵ Downes-Martin, —Assessments Process,” 13.

²⁶ Ben Connable, *An Alternative to Effects-Based Campaign Assessment in Afghanistan*, RAND report PM-3618-MCIA (Arlington, VA: RAND, September 2010), 37–47. Joseph Soeters, —Measuring the Immeasurable? The Effects-Based Approach in Comprehensive Peace Operations,” draft paper presented at the tenth European Research Group on Military and Society conference (Stockholm, Sweden, June 23, 2009): 7–8, 11, 18, cited in Ben Connable, *Alternative*, 46. Downes-Martin, —Assessments Process,” 3–7.

²⁷ Downes-Martin, —Assessments Process,” 6.

²⁸ Ben Connable, *An Alternative*, 37.

Given these problems with the implementation of operational assessment, where do joint force commanders look for developing an adequate process that guides them on how to do assessment, who should do assessment, and what should be assessed? Since operational assessment is relatively new,²⁹ little to no documentation or study of the actual process is available. Similarly, no professional journals have published lessons learned on performing assessment for others to apply the best practices found.³⁰ In light of this lack of any professional discourse, this paper discusses two historical examples of assessment that highlight the basic principles and considerations for effective assessment mentioned in FM 5-0. These examples do not demonstrate best practices in an operational assessment process (as one did not exist). Rather, these examples demonstrate that the basic principles work and therefore, they are worth incorporating into formal operational assessment doctrine. Of note, these examples focus on counterinsurgency to demonstrate that assessment works effectively even in population-centric operations, which rely more heavily on qualitative measures vice quantitative measures.³¹

²⁹ JP 5-0, *Joint Operation Planning*, iii. The text on assessment was added in 2002.

³⁰ Most professional discussion on the topic revolves around some facet of MOEs and MOPs. While the topics may have titles that indicate a discussion on assessment, they focus on the attributes of metrics. For representative examples, see James Clancy and Chuck Crossett, "Measuring Effectiveness in Irregular Warfare," *Parameters* (Summer 2007): 88–100, <http://www.carlisle.army.mil/usawc/Parameters/Articles/07summer/clancy.pdf> (accessed 31 August 2010); Clinton R. Clark and Timothy J. Cook, "A Practical Approach to Effects-Based Operational Assessment," *Air and Space Power Journal* (Summer 2008): 82–99, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj08/sum08/sum08.pdf> (accessed 22 October 2010); Christopher W. Bowman, "Operational Assessment—The Achilles Heel of Effects-based Operations?" (research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2002), <http://handle.dtic.mil/100.2/ADA405868> (accessed 10 October 2010); Cornelius W. Kugler, "Operational Assessment in a Counterinsurgency" (research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006), <http://handle.dtic.mil/100.2/ADA470761> (accessed 10 October 2010).

³¹ U.S. Army. *Counterinsurgency*, Field Manual (FM) 3-24 (Washington, D.C.: Headquarters Department of the Army, 15 December 2006) 5-27.

Malayan Emergency: The White Areas

From 1948 until 1960, the British and the Malays fought an insurgency against an ethnic Chinese minority on peninsular Malaya. As part of the process for systematically reducing the influence of the insurgents and the areas of the country where they held sway, General Sir Gerald Templer devised a system of population controls in 1953 to separate the insurgents from their support system.³² To track the progress of stamping out the insurgency, Templer designated each district in peninsular Malaya as either a “white area” or a “black area.” Districts labeled as black constituted areas where the Malaysian Communist Party (MCP) held control. In the black areas, banditry and crime were high and the local security apparatus was too weak to rid the district of insurgent influence. Consequently, in the black areas Templer enacted the full extent of the “Emergency Regulations,” which amounted to an unpleasant life for the inhabitants of that district. Strict food and drug control, curfews, identity checks for entry and exit to barbed-wire surrounded villages, and invasive searches for contraband were some examples of the restrictions on life the population endured.³³ In order to have these restrictions lifted from a district, Templer and his staff needed to believe that the district was free from the influence of the MCP. Once free of MCP influence, Templer declared that district white and the population returned to a more normal life. For Templer, the convincing arguments arose from the quantitative and qualitative assessment of the Special Branch of the Malayan Police.³⁴

³² Robert W. Komer, *The Malayan Emergency in Retrospect: Organization of a Successful Counterinsurgency Effort*, Publication R-957-A (Santa Monica, CA: RAND, 1972), 20–1.

³³ Riley Sunderland, *Winning the Hearts and Minds of the People: Malaya, 1948-1960*, RAND report RM-4174-ISA (Santa Monica, CA: RAND, September, 1964), 40, http://www.rand.org/pubs/research_memoranda/2005/RM4174.pdf (accessed 14 October 2010).

³⁴ Sunderland, *Hearts and Minds*, 39–40.

Since the British considered the counterinsurgency effort in Malaya primarily a civil problem vice a military one, the civilian police force provided the intelligence for the operation. In fact, Templer subordinated military intelligence to the civilian effort, the Special Branch of the Malayan Police. Since the civilian police knew the language and the people, they were far more effective as obtaining actionable intelligence and assessing the influence of the insurgents in a given district.³⁵ Much of their quantitative assessment came from extensive intelligence they gathered from the villages to keep track of the number of insurgents involved. Obtaining this information was not easy and the methods they employed were sometimes risky, such as the use of double agents, but it slowly paid off.³⁶ When the number of insurgents dwindled to only a few in a district with no recent success in tracking them down, the Special Branch sometimes made a qualitative assessment that the district was clear of MCP influence. Special Branch was always cautious about making this assessment, but the fact that no white area ever reverted to black vindicated their methodology.³⁷

This case study demonstrates several of the basic principles found in FM 5-0. First, the Special Branch combined quantitative and qualitative indicators (one of FM 5-0's effective assessment considerations) to assess a district before recommending that Templer declare it white. Second, they concentrated on what should have been measured (an FM 5-0 rule of thumb), such as the numbers (and names) of remaining insurgents, vice measuring the easier (and less useful) metrics, such as numbers of attacks or incidents involving the insurgents. Third, their list of "success criteria" was small, and therefore their assessment

³⁵ Komer, *The Malayan Emergency*, 42–44.

³⁶ Richard L. Clutterbuck, *The Long Long War: Counterinsurgency in Malaya and Vietnam* (New York, NY: 1966), 124–127. Richard L. Clutterbuck, *Riot and Revolution In Singapore and Malaya, 1945-1963* (London, England: Faber and Faber Limited, 1973), 184–5.

³⁷ Clutterbuck, *The Long Long War*, 129–131.

was manageable, vice ~~–~~excessive,” another rule of thumb. They cut right to the heart of what mattered in determining whether the insurgents were in control or not. Finally, Special Branch used informal assessment from their debriefings of villagers along with the formal assessments (another effective assessment consideration) of numbers and likely locations of insurgents. As one additional take away, who conducts the assessments is important. What was more important than just an intelligence function that provided the assessment, it was the source of intelligence. Templer recognized the indigenous police force as far more effective for producing the information needed than the military, so they led the collection and assessment effort.

French Indochina: Tax Records, School Teachers, and Village Chiefs

A noted scholar on French Indochina, Bernard Fall had a knack for analysis. His assessments of the situation facing the French in the Red River Delta during the months leading up to the battle of Dien Bien Phu and the situation facing the South Vietnamese at the onset of the Second Indochina War (the American Viet-Nam War) were prescient of the results to come. Being a historian and political scientist, Fall’s assessments concentrated on the extent of administrative control of the country between the government and the insurgents. He combined quantitative, spatial assessments with qualitative assessments of related activity to predict the level of control the government really had.

In 1953, the French held a section of northern Indochina around the Red River Delta, which included the port of Haiphong and the capital of Hanoi. The French were convinced that the territory they held was relatively secure from the Communist insurgents, with a fort and bunker system enclosing the delta. The French estimated that the Communists really only controlled about five small ~~–~~blotches” within this territory, with the majority

concentrated outside the “secure” delta.³⁸ Since the French held the majority of this territory, they believed they could deny both manpower and food support to the Communist insurgents. Bernard Fall was not quite convinced.³⁹

Therefore, Fall decided to investigate the tax rolls of all the villages in the delta. He hypothesized that a government in control would always continue to collect taxes. The qualitative aspect of his assessment speculated that a lack of tax collection meant that the government lacked de facto control. His research revealed that the majority of the Red River Delta populace did not pay taxes.⁴⁰ To crosscheck this hypothesis, he put his political science skills to work again, checking records on registered schoolteachers. Since the Vietnamese government centrally assigned schoolteachers, the presence of schoolteachers indicated government control.⁴¹ The majority of the delta lacked schoolteachers. What’s more, the lack of tax collection and lack of teachers coincided. The synthesis of his analysis showed that the Communists actually controlled about 70 percent of the territory the French thought was theirs. While Fall shared this information with the French military, it was largely ignored. He was not surprised at all when the Red River Delta fell to the communists in 1954.⁴²

A similar story unfolded in South Vietnam when Fall returned in 1957. Bernard put his historical and political science knowledge to work again in an analysis and assessment of the situation looming there. He noticed the newspapers reported a number of village chiefs killed off each day, so he gathered up data on all the dead village chiefs over a year, 452 in

³⁸ Bernard B. Fall, *Viet-Nam Witness, 1953-66* (New York, NY: Praeger Publishers, 1970), 280.

³⁹ Bernard B. Fall, “The Theory and Practice of Insurgency and Counterinsurgency,” *Naval War College Review* 51 (Winter 1998): 51–52.

⁴⁰ *Ibid.*, 52.

⁴¹ *Ibid.*

⁴² *Ibid.*, 51–52.

all.⁴³ He plotted all of these deaths on a map and crosschecked his work with reports of bandit attacks. The attacks coincided with the deaths of the village chiefs, though the newspapers routinely reported these deaths as the work of ~~unknown~~ unknown elements.”⁴⁴ Fall brought this information to the attention of the Minister of the Interior. The Minister pulled out a map of known or suspected communist cells in South Vietnam; not surprisingly, Fall’s map and the Minister’s map correlated closely. Further research by Fall verified the presence and general location of communist forces that were systematically eliminating government control in the south, at upwards of 11 village officials a day by 1961.⁴⁵ Fall solidified his assessment of Communist control, evidenced by tax collections (or lack thereof by the South Vietnamese government) in the same way he previously mapped the Communist’s control of the north.⁴⁶ In essence, the Communists had taken over control of South Vietnam and isolated Saigon before the start of open confrontation between the Viet Cong and South Vietnam.⁴⁷

The case of Bernard Fall and Vietnam hold similar lessons to the Malay case. First, effective assessment combines quantitative and qualitative measures; Bernard Fall did just that. Second, concentrating on what should be measured matters; Fall did not count the number of bandits or the number of bandit attacks, but the number of village chiefs killed. Finally, the collection was not overly detailed and the analysis was not excessive; Fall concentrated on only a few metrics. One other salient point from this case is that ~~—wo~~” measured the information was not an intelligence officer, but a subject matter expert (SME) that understood what was relevant to the situation.

⁴³ Ibid, 52.

⁴⁴ Ibid.

⁴⁵ Ibid, 53.

⁴⁶ Ibid, 52–53.

⁴⁷ Fall, *Viet-Nam Witness*, 200–203, 281–284.

The Case Against Operational Assessment

Of course, given the abysmal performance of operational assessment compared to the amount of effort expended, one could argue that the military should just drop the concept. The amount of effort spent on attempted operational assessment has continued to drain staffs of valuable hours that they could spend elsewhere. Staffs lack the time and manpower to analyze the information they have.⁴⁸ This lack of time and manpower has also resulted in staffs providing fictional information in assessment reports sent to higher headquarters. In addition, collecting the information staffs need such as survey results proves exceptionally challenging.⁴⁹ Staffs find themselves spending an inordinate amount of time on just their reporting requirements (a caution highlighted in FM 5-0⁵⁰) instead of conducting valuable analysis.⁵¹ Furthermore, staffs rarely receive feedback on the results of their assessment work. Therefore, this abysmal performance begs the question, why continue operational assessment?⁵²

The complaints against operational assessment are quite valid. The poor results produced at the expense of a significant amount of effort stem directly from the artificially high complexity created in the assessment process. Staffs force this complexity upon themselves when they create their own process without adequate direction on planning and conducting operational assessment. However, the answer to these problems is not to completely abandon operational assessment. David Kilcullen, the well-known

⁴⁸ Robert B. Sotire, "Measuring Performance and Effectiveness in Irregular Warfare: Preventing Dysfunctional Behavior" (research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2009), 10, <http://handle.dtic.mil/100.2/ADA504933> (accessed 1 September 2010). Downes-Martin, "Assessment Process," 8. Connable, *An Alternative*, 45.

⁴⁹ Etienne Vincent, Philip Eles, and Boris Vasiliev, "Opinion Polling in Support of Counterinsurgency" (paper presented at the Cornwallis Group XIV workshop, Vienna, Austria, 6–9 April 2009), 105–106, http://www.thecornwallisgroup.org/cornwallis_2009/7-Vincent_etal-CXIV.pdf (accessed 10 October 2010).

⁵⁰ FM 5-0, *The Operations Process*, 6–9.

⁵¹ Connable, *An Alternative*, 42.

⁵² Downes-Martin, "Assessment Process," 9.

counterinsurgency expert, recently noted that despite changing strategy three times the International Security Assistance Force (ISAF) in Afghanistan must still track its progress to be effective.⁵³ General Jim Mattis believes the military should retain the idea of “conducting periodic assessments of operations to determine progress toward achieving objectives.”⁵⁴ The experts believe assessment does have value. Bernard Fall and Templer’s Special Branch demonstrated that value. Where the U.S. military failed today, they succeeded, partially due to the simplicity of their methods.⁵⁵ Bernard Fall and Templer’s Special Branch adhered to the basic principles and considerations for effective assessment the Army would pen into FM 5-0 decades later. The next section will discuss some recommendations for institutionalizing those principles into doctrine to put the operational assessment process back on track.

Recommendations

The joint force needs to return to the basics of operational assessment. As previously mentioned, FM 5-0 provides three excellent rules of thumb for the basics of operational assessment: “avoid excessive analyses,” “avoid ... overly detailed assessment and collection of data,” and avoid measuring something just because it can be measured. In addition, FM 5-0 provides several considerations for effective assessment. While beyond the scope of this paper to cover all of these considerations, this paper demonstrated the importance of combining quantitative and qualitative indicator and using informal assessment methods with formal methods. Other recommendations that are beyond the scope of this paper include

⁵³ David Kilcullen, “Measuring Progress in Afghanistan,” Oxford University Press blog, <http://blog.oup.com/2010/06/afghanistan/> (accessed 24 October 2010).

⁵⁴ James N. Mattis, “USJFCOM Commander’s Guidance for Effects-based Operations.” *Joint Force Quarterly*, No. 51 (4th Quarter 2008): 108, <https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/ndupress&CISOPTR=20972&REC=8> (accessed 20 October 2010).

⁵⁵ Bernard Fall’s assessment was successful in predicting outcomes. Preventing those outcomes from occurring was the responsibility of the involved governments and militaries.

sound operations analysis techniques and visual display techniques for quantitative information.⁵⁶

First, joint force commanders need a well-defined assessment process. On one hand, the Joint Operation Planning Process contains sufficient detail to analyze missions and craft concepts of operations. On the other hand, the operational assessment process does not contain sufficient detail to analyze missions and assess operations during execution. Furthermore, the operational process does not consider subject-matter experts in the process of creating, monitoring, and analyzing metrics. The process focuses on the J-2 and J-3 without mention of cultural, historical, sociological, and political expertise. As the owners of joint doctrine, the Joint Staff should create a best of breed process and incorporate it into JP 5-0, JP 3-0, and the JOPP. As mentioned above, the assessment process in FM 5-0 is the most mature of the service doctrines. The Navy recently released a TACMEMO on operational assessment for implementation by Maritime Operations Centers (MOCs).⁵⁷ Though fairly detailed, it is not joint. RAND recently completed a study of operational assessment in Afghanistan, though it is not releasable at the time of this writing.⁵⁸ When this study becomes available, the Joint Staff should seriously consider it for recommendations to the assessment process, particularly as it applies to population-centric operations. In short, the process must detail *how* to conduct assessment in a simple and clear manner.⁵⁹

⁵⁶ See Stephen K. Campbell, *Flaws and Fallacies in Statistical Thinking* (Mineola, NY: Dover Publications, Inc.: 2002) and Edward R. Tufte, *The Visual Display of Quantitative Information* (Cheshire, CT: Graphics Press, 1997) for a deeper discussion of the problems seen today in analysis and reporting by staffs at all levels.

⁵⁷ See U.S. Navy, *Operational Assessment*, TACMEMO 3-32.2-09, (Washington, D.C.: Department of the Navy, CNO, July 2009), available on the Navy Doctrine Library System website, <https://ndls.nwdc.navy.mil/Default.aspx>.

⁵⁸ Ben Connable, *An Alternative*.

⁵⁹ A systematic breakdown in the JOPP with particular emphasis on the basic principles would go a long way to improvement.

Second, joint doctrine must emphasize the avoidance of excessive and overly detailed assessment and collection of metrics. Excessive assessment leads to the collection of an unmanageable number of metrics, which staffs do not have the time or resources to collect. As a result, when they do not have the information, they routinely create fictional information.⁶⁰ Overly detailed assessment and collection mires the staff in the creation of reports and briefs to the detriment of performing valuable analysis for their assessment. Therefore, staffs must make a conscious effort to limit their metrics to a manageable number, which means they must judiciously select those metrics; they simply do not have the time and resources to measure everything.⁶¹ A deeper understanding of the operational environment and the relevant population provides the key to judicious selection. Planning and assessment staffs should study the history, culture, socioeconomic issues, and political systems of the relevant population to gain this deeper understanding. To institutionalize these practices, the text in joint doctrine and the JOPP must reflect the importance of these principles.

Finally, joint doctrine must change the focus of the “relevant” and “measurable” attributes of metrics. Specifically, the text needs a discussion on avoiding measuring things just because they can be measured. It also needs a discussion on the difference between what should be measured and what can be measured. The Army’s FM 5-0 provides a good start. Additionally, the text in joint doctrine needs to remove the language that focuses on quantitative metrics because they avoid subjective interpretation. This paper demonstrated the importance of combining qualitative (subjective) assessment with quantitative assessment. Joint doctrine must reflect this importance. Operational assessment procedures

⁶⁰ Downes-Martin, “Assessment Process,” 8.

⁶¹ Both Downes-Martin’s and Connable’s research clearly highlighted this point.

in the JOPP must direct planners to identify what should be measured, regardless of whether those metrics can actually be measured. Second, the assessment procedures in the JOPP must identify what metrics cannot be measured due to unacceptable risk, insufficient resources or being ~~in~~herently unknowable.”⁶² The list of metrics that should be measured and the list of those that cannot be measured must be part of the course of action (COA) development and selection process. The commander must consider those metrics that cannot be measured in COA selection and consciously chose to accept the risk of not measuring certain metrics or provide more resources to measure those metrics that require them.

Conclusions

The military introduced the concept of operational assessment without adequately detailing the theory, process, and procedures for conducting it. Furthermore, the meager discussion in joint doctrine emphasized quantitative metrics while simultaneously failing to address the benefits of combining qualitative metrics with those quantitative ones. This paper demonstrated a clear benefit from those combinations. Doctrine did not adequately define the attribute of relevancy in metrics. As researchers found, the actual practice of operational assessment mistakenly found relevancy in those metrics that could be measured, vice those that should have been measured. As a result, overly excessive metric collection and analyses burdened operational staffs to the detriment of effectively determining progress towards mission accomplishment. Contrary to the conduct of operational assessment today, this paper demonstrated how General Templer’s Special Branch and Bernard Fall achieved effective assessment by adhering to the basic principles emphasized in FM 5-0. Today’s conduct of operational assessment fails to adhere to those principles and consequently fails to

⁶² Downes-Martin, —Assessment Process,” 3. Also, Dr. Downes-Martin discussed the topic with the author on 24 Sep 10.

deliver for the joint force commander. One could argue the military should cease wasting its time on assessment. The answer to the question, “why continue” is that operational assessment still has value. The joint force needs to change seriously how it does operational assessment. Instead of the complex assessment process in place today, the joint force must return to the basic principles of simplicity laid out in FM 5-0. Finally, the Joint Staff must institutionalize these basic principles in a well-defined process through joint doctrine and the JOPP so joint force commander and their staffs can achieve success in operational assessment.

Bibliography

- Bowman, Christopher W. —“Operational Assessment—The Achilles Heel of Effects-based Operations?” Research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2002.
<http://handle.dtic.mil/100.2/ADA405868> (accessed 10 October 2010).
- Campbell, Stephen K., *Flaws and Fallacies in Statistical Thinking*. Mineola, NY: Dover Publications, Inc.: 2002. Cited in Fricker, Ron. —“Applied Data Analysis for the Military Decision Maker (Part II).” Powerpoint. 30 September 2010.
- Chiarelli, Peter W. and Patrick R. Michaelis. —“Winning the Peace: The Requirement for Full-Spectrum Operations.” *Military Review* (July–August 2005): 4–17.
- Clancy, James and Chuck Crossett. —“Measuring Effectiveness in Irregular Warfare.” *Parameters* (Summer 2007): 88–100.
<http://www.carlisle.army.mil/usawc/Parameters/Articles/07summer/clancy.pdf> (accessed 31 August 2010).
- Clark, Clinton R. and Timothy J. Cook. —“A Practical Approach to Effects-Based Operational Assessment.” *Air and Space Power Journal* (Summer 2008): 82–99.
<http://www.airpower.maxwell.af.mil/airchronicles/apj/apj08/sum08/sum08.pdf> (accessed 22 October 2010).
- Clutterbuck, Richard L. *The Long Long War: Counterinsurgency in Malaya and Vietnam*. New York, NY: 1966.
- . *Riot and Revolution In Singapore and Malaya, 1945-1963*. London, England: Faber and Faber Limited, 1973.
- Connable, Ben. *An Alternative to Effects-Based Campaign Assessment in Afghanistan*. RAND report PM-3618-MCIA. Arlington, VA: RAND, September 2010.
- Cordesman, Anthony H. —“The Quarterly Report on ‘Measuring Stability and Security in Iraq: Fact, Fallacy, and an Overall Grade of ‘F’.” Washington, D.C.: Center for Strategic and International Studies, 5 June 2006.
http://csis.org/files/media/csis/pubs/0605_iraquarterlyreport.pdf (accessed 13 October 2010).
- . —“How to Lose a War - and Possibly How to Win One.” Center for Strategic and International Studies. <http://csis.org/publication/afghan-metrics> (accessed 13 October 2010).
- . —“Shaping the War in Afghanistan: The Situation in the Spring of 2010.” Powerpoint, 12 April 2010.

- http://csis.org/files/publication/100409_Afghan_Friday.pdf (accessed 13 October 2010).
- . —The Afghan War: A Campaign Overview.” Powerpoint, 7 June 2010.
http://csis.org/files/publication/100607_AfghanCampaignSummary_0.pdf (accessed 1 October 2010).
- . —The Afghan War: Metrics, Narratives, and Winning the War.” Powerpoint, 7 June 2010.
http://csis.org/files/publication/100524_AfghanCampaignMetrics_0.pdf (accessed 1 October 2010).
- . —The Data Needed to Support Shape, Clear, Hold, and Build.” Center for Strategic and International Studies. <http://csis.org/publication/new-metrics-afghanistan> (accessed 13 October 2010).
- . —Transparency, Credibility and a Long War.” Center for Strategic and International Studies. <http://csis.org/publication/afghanistan-and-obama> (accessed 13 October 2010).
- Crane, Conrad C. —Phase IV Operations: Where Wars are Really Won.” *Military Review* (May–June 2005): 27–36.
- Department of Military Instruction, U.S. Military Academy. —Measuring Success in Counterinsurgency Warfare.” U.S. Military Academy.
<http://www.usma.edu/dmi/IWmsgs/MeasuringSuccess.pdf> (accessed 10 October 2010).
- Devenny, Patrick. —All Available Tools: Parallel Governance and Modern Insurgencies.” *Small Wars Journal*. <http://smallwarsjournal.com/mag/docs-temp/207-devenny.pdf> (accessed 10 October 2010).
- Downes-Martin, Stephen. —Assessments Process for RC(SW).” Unpublished draft, Newport, RI: U.S. Naval War College, Center for Irregular Warfare and Armed Groups, 2010.
- Edwards, B. —Fighting the Huks: Lessons Learned from a Successful Counter-Insurgency Campaign.” Research paper, Maxwell Air Force Base, AL: Air Command and Staff College, 2006.
https://www.afresearch.org/skins/rims/q_mod_be0e99f3-fc56-4ccb-8dfe-670c0822a153/q_act_downloadpaper/q_obj_61162fd7-a4a8-47ac-a6e5-0232bb49269f/display.aspx?rs=enginespage (accessed 10 October 2010).
- Fall, Bernard B. *Viet-Nam Witness, 1953-66*. New York, NY: Praeger Publishers, 1970.
- . —The Theory and Practice of Insurgency and Counterinsurgency.” *Naval War College Review* 51 (Winter 1998): 46–57.

- Farmer, James. *Counterinsurgency: Principles and Practices in Viet-Nam*. RAND report P-3039. Santa Monica, CA: RAND: December 1964.
- Flavin, William. —Planning for Conflict Termination and Post-Conflict Success.” *Parameters* (Autumn 2003): 95–112.
<http://www.carlisle.army.mil/usawc/Parameters/Articles/03autumn/flavin.pdf>
 (accessed 31 August 2010).
- Greenberg, Lawrence M. *The Hukbalahap Insurrection: A Case Study of a Successful Anti Insurgency Operation in the Philippines – 1946-1955*. Washington, D.C.: U.S. Army Center of Military History, 1986.
- Gregor, William J. —Military Planning Systems and Stability Operations.” *PRISM*, Vol. 1 (August 2010): 99–114.
<http://www.army.mil/-news/2010/07/22/42647-military-planning-systems-and-stability-operations/index.html> (accessed 17 October 2010).
- Joint Warfighting Center, U.S. Joint Forces Command. *Commander’s Handbook for an Effects-Based Approach to Joint Operations*. Suffolk, VA: U.S. Joint Forces Command, Joint Warfighting Center, February 24, 2006.
http://www.au.af.mil/au/awc/awcgate/jfcom/ebo_handbook_2006.pdf (accessed 15 October 2010).
- Jones, Douglas D. —Understanding Measures of Effectiveness in Counterinsurgency Operations.” Research paper, Fort Leavenworth, KS: School of Advanced Military Studies, U.S. Army Command and General Staff College, 2006.
<http://handle.dtic.mil/100.2/ADA450589> (accessed 1 September 2010).
- Kagan, Frederick W. —Measuring Success.” *Armed Forces Journal*, January 2006.
<http://armedforcesjournal.com/2006/01/1397777/> (access 10 October 2010).
- Kilcullen, David, —Measuring Progress in Afghanistan.” Oxford University Press blog.
<http://blog.oup.com/2010/06/afghanistan/> (accessed 24 October 2010).
- Komer, Robert W. *The Malayan Emergency in Retrospect: Organization of a Successful Counterinsurgency Effort*. Publication R-957-A. Santa Monica, CA: RAND, 1972.
- Kugler, Cornelius W. —Operational Assessment in a Counterinsurgency.” Research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006.
<http://handle.dtic.mil/100.2/ADA470761> (accessed 10 October 2010).
- Kwinn, Michael J., Jr., Edward A. Pohl, Richard Deckro, John Brence, Mark Gorak, and Eric Tollefson. —Afghanistan National Development Assessment System (ANDAS).” Research paper, West Point, NY: United States Military Academy, Operations Research Center of Excellence, 2004.

- <http://handle.dtic.mil/100.2/ADA427990> (accessed 1 October 2010).
- Landsdale, Edward G. *In the Midst of Wars: An American's Mission to Southeast Asia*. New York, NY: Harper and Row, 1972.
- Mattis, James N. "USJFCOM Commander's Guidance for Effects-based Operations." *Joint Force Quarterly*, No. 51 (4th Quarter 2008): 105–108.
https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/ndupress&CISO_PTR=20972&REC=8 (accessed 20 October 2010).
- North Atlantic Treaty Organization. "Afghanistan Report 2009." 31 March 2009.
http://www.isaf.nato.int/pdf/20090331_090331_afghanistan_report_2009.pdf (accessed 1 October 2010).
- Soeters, Joseph. "Measuring the Immeasurable? The Effects-Based Approach in Comprehensive Peace Operations," draft paper presented at the tenth European Research Group on Military and Society conference (Stockholm, Sweden, June 23, 2009). Cited in Ben Connable, *An Alternative to Effects-Based Campaign Assessment in Afghanistan*. RAND report PM-3618-MCIA. Arlington, VA: RAND, September 2010.
- Sotire, Robert B. "Measuring Performance and Effectiveness in Irregular Warfare: Preventing Dysfunctional Behavior." Research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2009.
<http://handle.dtic.mil/100.2/ADA504933> (accessed 1 September 2010).
- Smith, Robert R. "The Hukbalahap Insurgency: Economic, Political, and Military Factors." Washington, D.C.: Office of the Chief of Military History, 1963.
- Strategic Advisory Group, International Security Assistance Force. "Unclassified Metrics, April 2009." Powerpoint. 9 May 2009.
http://media.csis.org/pcr/090511_isaf_metrics_april09.pdf (accessed 1 October 2010).
- Sunderland, Riley. *Winning the Hearts and Minds of the People: Malaya, 1948-1960*. RAND report RM-4174-ISA. Santa Monica, CA: RAND, September, 1964.
http://www.rand.org/pubs/research_memoranda/2005/RM4174.pdf (accessed 14 October 2010).
- Tufte, Edward R. *The Visual Display of Quantitative Information*. Cheshire, CT: Graphics Press, 1997. Cited in Fricker, Ron. "Applied Data Analysis for the Military Decision Maker (Part II)." Powerpoint. 30 September 2010.
- U.S. Air Force. *Operations and Organization*. Air Force Doctrine Document (AFDD) 2. Washington, D.C.: Department of the Air Force, 3 April 2007.
<http://www.e-publishing.af.mil/shared/media/epubs/AFDD2.pdf> (accessed 18 October 2010).

U.S. Army. *Counterinsurgency*. Field Manual (FM) 3-24. Washington, D.C.: Headquarters Department of the Army, 15 December 2006.

———. *The Operations Process*. Field Manual (FM) 5-0. Washington, D.C.: Headquarters Department of the Army, 26 March 2010.
https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm5_0.pdf
(accessed 18 October 2010).

U.S. Department of Defense. *Irregular Warfare Joint Operating Concept*. Washington, D.C.: DoD, 11 September 2007.
<http://www.dtic.mil/futurejointwarfare/concepts/iw-joc.pdf> (accessed 1 September 2010).

———. *Measuring Stability and Security in Iraq: May 2006: Report to Congress In accordance with the Department of Defense Appropriations Act 2006*. Washington, D.C.: DoD, 2006.
<http://www.defense.gov/pubs/pdfs/May%202006%20Security%20and%20Stabilty%20Report%20Final%20with%20errata.pdf> (accessed 13 October 2010).

United States Embassy Kabul and Commander, United States Forces-Afghanistan, “United States Government Integrated Civilian-Military Campaign Plan for Support to Afghanistan,” August 10, 2009.

U.S. Marine Corps. *Expeditionary Operations*. Marine Corps Doctrine Publication (MCDP) 3. Washington, D.C.: Headquarters U.S. Marine Corps, 16 April 1998.
<https://www.doctrine.usmc.mil/signpubs/d3.pdf> (accessed 18 October 2010).

———. *Planning*. Marine Corps Doctrine Publication (MCDP) 5. Washington, D.C.: Headquarters U.S. Marine Corps, 21 July 1997.
<https://www.doctrine.usmc.mil/signpubs/d5.pdf> (accessed 18 October 2010).

———. *Marine Corps Planning Process*. Marine Corps Warfighting Publication (MCWP) 5-1., Washington, D.C.: Headquarters U.S. Marine Corps, 24 August 2010.
<https://www.doctrine.usmc.mil/signpubs/w51.pdf> (accessed 18 October 2010).

U.S. Naval War College and U.S. Navy Warfare Development Command. “Maritime Component Commander (CFMCC and JFMCC) Guidebook.” Draft handbook, Newport, RI: U.S. Naval War College, 2009.

U.S. Navy. *Navy Planning*. Navy Warfare Publication (NWP) 5-01., Washington, D.C.: Department of the Navy, CNO, January 2007.

———. *Operational Assessment*. TACMEMO 3-32.2-09., Washington, D.C.: Department of the Navy, CNO, July 2009.

U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Intelligence*. Joint Publication (JP) 2-0. Washington, D.C.: CJCS, 22 June 2007

———. *Joint Operations*. Joint Publication (JP) 3-0. Washington, D.C.: CJCS, 22 March 2010 with Change 2.

———. *Information Operations*. Joint Publication (JP) 3-13. Washington, D.C.: CJCS, 13 February 2006.

———. *Joint Task Force Headquarters*. Joint Publication (JP) 3-33. Washington, D.C.: CJCS, 16 February 2007.

———. *Joint Targeting*. Joint Publication (JP) 3-60. Washington, D.C.: CJCS, 13 April 2007.

———. *Joint Operation Planning*. Joint Publication (JP) 5-0. Washington, D.C.: CJCS, 26 December 2006.

Van Riper, Paul K. “EBO: There Was No Baby in the Bathwater.” *Joint Force Quarterly*, No. 52 (1st Quarter 2009): 82–85.
https://digitalndulibrary.ndu.edu/cdm4/document.php?CISOROOT=/ndupress&CISO_PTR=20799&REC=9 (accessed 20 October 2010).

Vincent, Etienne, Philip Eles, and Boris Vasiliev. “Opinion Polling in Support of Counterinsurgency.” Paper presented at the Cornwallis Group XIV workshop, Vienna, Austria, 6–9 April 2009.
http://www.thecornwallisgroup.org/cornwallis_2009/7-Vincent_etal-CXIV.pdf (accessed 10 October 2010).